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Order Instituting Rulemaking
Concerning Energy Efficiency Rolling
Portfolios, Policies, Programs, Evaluation,
and Related Issues

Rulemaking 13-11-005
(Filed November 14, 2013)

**COMMENTS OF HOME ENERGY ANALYTICS ADDRESSING ADMINISTRATIVE
LAW JUDGE'S RULING "SEEKING INPUT ON APPROACHES FOR STATEWIDE AND
THIRD-PARTY PROGRAMS"**

June 17, 2016

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Home Energy Analytics welcomes the opportunity to provide comments. HEA provides web-based residential smart meter analysis software to help individuals reduce their energy consumption through cost-effective actions. Our software has been used to analyze over 5,000 residences in California and helps users reduce their energy consumption (both gas and electricity) by an average of 12%.

HEA has actively participated in the Residential Sector Subcommittee attending Stage 1 and 2 meetings, and providing written comments on the business plans. These comments expand on those provided to the Coordinating Committee concerning the business plans.

Several questions in the ruling ask for input on development of the Sector Business Plans, specifically: 1, 2, 3, 4, 7, 17, 23, 24, 25 and 28. We offer the following comments in support of providing additional guidance on the development the Sector Business Plans for the residential sector.

The purpose of the ruling, as stated in the second paragraph is “to respond to the mandate in Senate Bill (SB) 350 (De León, 2015) requiring a doubling of statewide delivered energy efficiency savings in electricity and natural gas end uses of California retail customers by 2030.” Doubling of energy efficiency implies a specific target, ideally in terms of additional kWh, therms, or BTUs saved, to achieve by 2030. Presumably, this target will be split between the commercial and residential sectors, and could be further divided so each residential energy efficiency program is responsible for a specific, measured reduction. The ruling presents options for program design and delivery, but the need to set clear metrics by which the programs are measured is an equally important if not the most critical goal, and is not addressed in the ruling.

We are not advocating specifying actual numerical targets in the ruling. Instead, we are suggesting the ruling include guidance on how to set these targets based on annual targets for energy efficiency savings set by the State Energy Resources Conservation and Development Commission, as called out in SB-350. Targets should be measures in units relevant to the goal – reduction in energy use – and applicable to all programs. We propose each program have a kWh and/or BTU¹ reduction target. Other targets, such as number of participants, installations of certain measures, etc. do not directly measure energy reduction.

Ideally, measured energy reduction should be compared to targets on a quarterly or six month schedule for each program. Using meter data to automatically track changes in energy consumption at the residential meter level and then aggregating the savings for each program is the only way to provide accurate data for such a tight review schedule. The progress and success of individual programs should be judged against their targets on a regular basis so we suggest the Commission require the Business Plans include regular, periodic review of program progress against the established targets.

Making program metrics consistent will make it possible to compare program effectiveness. Program effectiveness can be measured in kWh or BTU reductions per dollar spent, with the goal of maximizing the ratio of savings per dollar spent.

Smart meter data is the enabling technology to measure program effectiveness and facilitate regular and timely progress assessments. The savings achieved by each program can be calculated quickly and accurately so actual vs. targeted comparisons can easily be made on a regular basis. Setting a uniform metric for measuring success and reviewing progress will lead to:

1. Increased cost effectiveness.

¹ We are proposing one metric for all programs: source or site kWhs, therms or BTUs. Each unit can be converted into the others, but we need a common definition so we can effectively manage toward the goal.

Regular and timely access to actual energy savings make it possible to determine the cost effectiveness of each program by calculating the cost of each kWh or BTU saved.

2. Increased innovation.

New energy efficiency measures can be deployed on a small scale and their efficacy measured in terms of cost effectiveness.

3. Increased feedback.

By scheduling periodic, public discussion on measured savings for individual programs and comparing progress to targets, program administrators can be more nimble in enhancing program effectiveness and adopting best practices. Measures and programs showing greater cost effectiveness can be expanded, and programs showing less promise can be modified or discontinued.

Respectfully submitted,

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By _____/s/ _____
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